MODULAR BI-FOLD DOOR

FIELD OF THE INVENTION

This invention relates to modular work spaces and, in particular, to devices for providing privacy to single work spaces, in a modular work space environment.

BACKGROUND OF THE INVENTION

Modular work spaces, or "cubicles," are well known in the art. In general the modular work space allows the transformation of a wide open area into an office area having multiple work spaces for multiple workers. In general, a modular work area consists of wall panels which can be connected together in various ways to form individual work spaces. Generally, the modular work space includes modules which provide typical office accessories, such as desks and cabinets and typically also includes conduits for the routing of electrical and communication wiring. Entry to and egress from individual modular work spaces generally is provided by means of a gap in the modular work space, wherein the series of modular walls does not comprise a completely enclosed space. Generally the modular work spaces do not have doors, although it is possible to utilize a traditional door in the open entry and egress area of the modular work space.

While the modular work space provides an open working atmosphere, it is often desirable to have privacy in individual areas during certain activities, such as when conducting meetings in the work spaces or while communicating on the phone, to avoid disturbing others and to provide a certain amount of privacy for the person in the work place. Therefore, it would be desirable to provide a door that provides temporary privacy within the modular work space while not destroying the open atmosphere of the overall work plan area.

SUMMARY OF THE INVENTION

The present invention provides a door for a modular work space unit and, in particular, a bi-fold door that can be shared between two adjacent modular work spaces. The door comprises a main panel having casters on the bottom thereof to facilitate its movement across a hard or carpeted floor, and a second panel hingedly attached to the main panel that provides an attachment to the existing modular work space area. The door of the present invention is designed to be adaptable to existing modular work areas that have a wall having a flat end section adjacent to the entry and egress area of the individual work space, or between two adjacent work space areas. Alternatively, the door of the present invention could also be used on any flat surface, such as a wall. The door has an attachment point which can be attached to any flat surface via any number of ordinary connection means, such as with screws.

The door, when attached to the flat end of a modular wall separating two adjacent work areas, is designed to swing either to the left or to the right to enclose the entry and egress area of either of the two adjacent work areas. When not in use, the door is designed to fold up somewhat perpendicular to the wall between the two adjacent work stations.

BRIEF DESCRIPTION OF THE DRAWINGS

FIG. **1** shows a plan view of the door showing the component parts thereof.

FIG. **2** shows an exploded view of the door of FIG. **1**.

FIG. **3***a* shows a view of the door attached to the modular wall portion of the modular work space.

FIG. **3***b* is a reverse angle view of the door attached to the modular wall of FIG. **3***a*.

FIG. **4***a* is a view of the door in the folded up position against the modular wall.

FIG. **4***b* is a reverse angle view of the door in the folded up position of FIG. **4***a*.

FIGS. **5***a* and **5***b* show the side frame members of the main door member.

FIGS. **6***a* and **6***b* show the top and bottom frame members of the main door member.

FIGS. **7***a* and **7***b* show a top view of the right-hand and left-hand versions of the door.

FIG. **8** shows the finishing member for a modular wall on which the door could be mounted.

FIG. **9** is a view of two adjacent modular work spaces showing the door closing the entry and egress area of one of the spaces.

FIG. **10** is a second view of the two adjacent modular work spaces of FIG. **9** showing the door closing the entry and egress area of the other of the spaces.

FIG. **11** is a third view of the two adjacent modular work spaces of FIG. **9** showing the door in an open, stowed position, allowing an open entry and egress area for both spaces.

DETAILED DESCRIPTION OF THE INVENTION

FIG. **1** shows the entire door of the present invention, which includes the following component parts. Main door portion **10** is composed of upper and lower frame members **22** and left and right side members **24**. The framing members **22** and **24** frame insert **20**. Casters **18** are attached to the bottom of lower framing members **22**. Attached to one side member **24** is continuous hinge **14**. Continuous hinge **14** is also attached to secondary panel **12** such that main panel **10** and secondary panel **12** may rotate with respect to each other about hinge **14**. Attached to the other side of secondary panel **12** is a second continuous hinge **15** which provides the attachment point for attachment to an existing wall or modular office panel A, as shown in

FIGS. **3***a* and **3***b*. Flat attachment panel **16**, shown in FIG. **8**, may be used to finish the end of wall A of the modular work space area to allow attachment of the door thereto.

Main door portion **10** may be of any general shape, such as flat or arcuate, as desired for manufacturing considerations or for cosmetic reasons. The figures used herein show exemplars of a door having arcuately-shaped main panel **10** and arcuately-shaped secondary panel **12**, however, the invention is not meant to be limited thereby. To provide main panel **10** with an arcuate shape, upper and lower framing members **22** are arcuately shaped.

FIG. **2** shows the door in exploded view. Upper frame member **22** is attached to side frame members **24** with attachment members **23**. Lower frame member **22** is attached to side frame members **24** using attachment members **25** which also serve to receive caster inserts **18***a* into which casters **18** are mounted.

FIGS. **3***a* and **3***b* show the door as attached to wall A of a modular office space. Main door portion **10**, in this example, is arcuate in shape, as is secondary panel **12**. In this embodiment, the degree of curvature of secondary panel **12** is less than that of main door portion **10**. The arcuate shape